

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: SPECTACLE POND	Lake Area (ha):	8.74
Town: ROXBURY	Maximum depth (m):	2.8
County: Cheshire	Mean depth (m):	1.4
River Basin: Connecticut	Volume (m <sup>3</sup> ):	123500
Latitude: 42°55'45" N	Relative depth:	0.7
Longitude: 72°11'45" W	Shore configuration:	2.00
Elevation (ft): 1211	Areal water load (m/yr):	6.64
Shore length (m): 2100	Flushing rate (yr <sup>-1</sup> ):	4.70
Watershed area (ha): 110.0	P retention coeff.:	0.61
% watershed ponded: 0.0	Lake type:	natural

BIOLOGICAL:

28 February 1989

28 July 1988

DOM. PHYTOPLANKTON (% TOTAL) #1	DINOBYRON 99%	CHRYOSOPHAERELLA 55%
#2		
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		855.0
CHLOROPHYLL-A (µg/L)		6.77
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 31%	NAUPLIUS LARVA 53%
#2	SYNCHAETA 26%	KERATELLA 19%
#3		POLYARTHRA 12%
ROTIFERS/LITER	60	230
MICROCRUSTACEA/LITER	22	270
ZOOPLANKTON ABUNDANCE (#/L)	96	500
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		2.8 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	7.5	8.4
BACTERIA (fecal col., #/100 ml) #1		< 10
#2		10
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>): None

CHEMICAL:Lake: SPECTACLE POND  
Town: ROXBURY

	28 February 1989		28 July 1988		
DEPTH (m)	1.5		1.0		2.5
pH (units)	5.8		6.2		5.6
A.N.C. (Alkalinity)	4.1		3.1		1.6
NITRATE NITROGEN	0.06		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.38		1.11		0.28
TOTAL PHOSPHORUS	0.018		0.014		0.015
CONDUCTIVITY ( $\mu$ mhos/cm)	37.1		25.3		25.3
APPARENT COLOR (cpu)	18		18		19
MAGNESIUM			0.70		
CALCIUM			1.4		
SODIUM			< 10.0		
POTASSIUM			0.50		
CHLORIDE	< 2		< 2		< 2
SULFATE	7		6		6
TN : TP	24		79		19
CALCITE SATURATION INDEX			4.5		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1988

D.O. S.D. PLANT CHL TOTAL CLASS

**	2	3	1	6	Meso.
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COMMENTS:

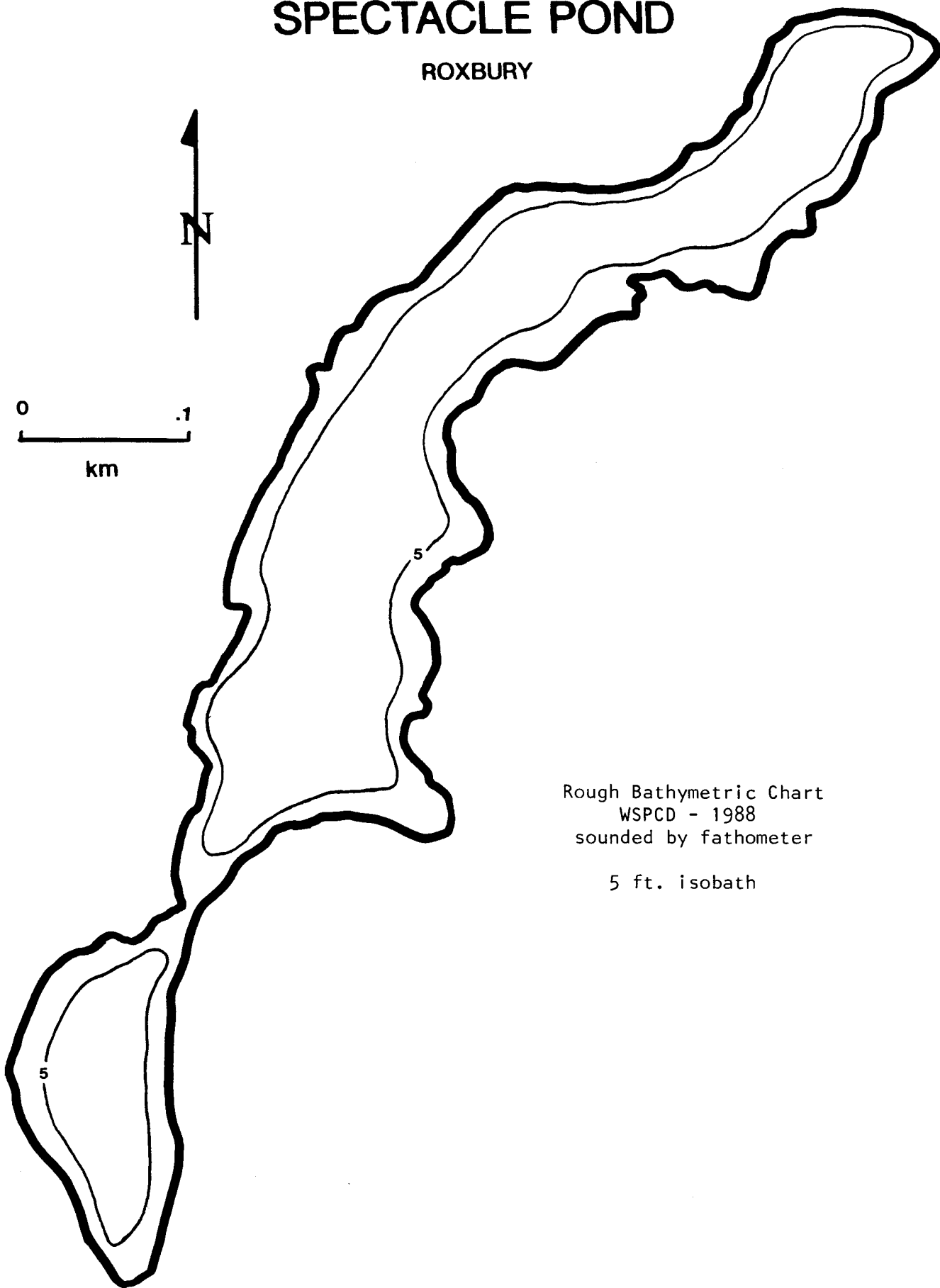
1. No public launch site; pond was accessed by canoe down a field at the southern end of the pond - very rough.
2. Pond is almost separated into two water bodies; there was approximately 6 inches of water in the narrow constriction in the pond.
3. The whole-water phytoplankton classes were dominated by greens (40%) and golden algae (25%). Tiny green flagellates (35%) were the dominant genus.

# SPECTACLE POND

ROXBURY



0 .1  
km



Rough Bathymetric Chart  
WSPCD - 1988  
sounded by fathometer

5 ft. isobath

# FIELD DATA SHEET

LAKE: SPECTACLE POND TOWN: ROXBURY  
DATE: 07/28/88 WEATHER: OVERCAST

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DATE: 07/28/88 WEATHER: OVERCAST

[illegible]

SECCHI DISK (m): 2.8 VOB COMMENTS:

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BOTTOM DEPTH (m): 2.8

TIME: 1149

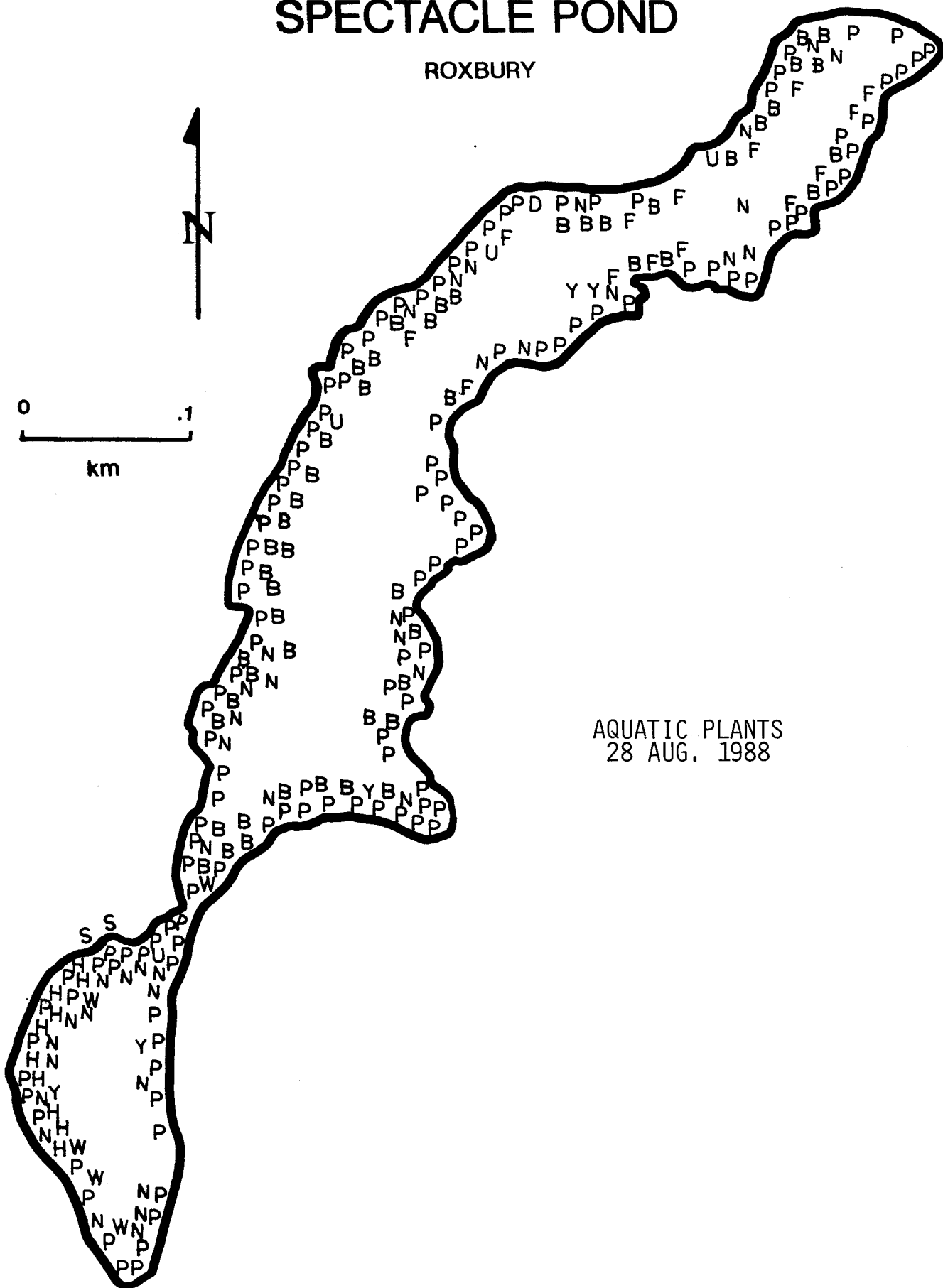
\*Dissolved oxygen values are in mg/L

# SPECTACLE POND

ROXBURY



0 .1  
km



AQUATIC PLANTS  
28 AUG. 1988

## AQUATIC PLANT SURVEY

LAKE: SPECTACLE POND

TOWN: ROXBURY

DATE: 07/28/88

[illegible]

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

1. Lots of frogs were present.